

atomizing said aqueous solution at said second burner assembly, to form a second aerosol.

11. (amended) A process for making an optical fiber preform, said process comprising the steps of:

- a) delivering a non-aqueous liquid reactant and an aqueous solution to a burner assembly;
- b) discharging said non-aqueous liquid reactant and said aqueous solution from said burner assembly into a flame, wherein said non-aqueous liquid reactant and said aqueous solution are atomized to form an aerosol comprising a plurality of non-aqueous liquid reactant droplets mixed with a plurality of liquid aqueous solution droplets;
- c) reacting said non-aqueous liquid reactant and said aqueous solution in said flame to produce soot; and
- d) depositing said soot onto a rotating mandrel.